



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/790,709

03/03/2004

Satoshi Arai

249946US2

2916

22850

7590

12/15/2006

C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, TUAN HOANG

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/790,709	Applicant(s) ARAI, SATOSHI	
	Examiner Tuan H. Nguyen	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hikita et al (US PAT. 4,792,939 hereinafter, "Hikita") in view of Sato et al. (U.S PUB. 2002/0027009 hereinafter, "Sato").

Consider claim 1, Hikita teaches a wireless communication apparatus, comprising: a mounting substrate including: a duplexer connected to an antenna terminal (col. 2 lines 25-35); a receiving amplifier and a transmitting amplifier individually connected to the duplexer (col. 3 lines 47-63); a processor unit having a receiving processor and a transmitting processor respectively connected to the receiving and transmitting amplifiers in a region spaced from the receiving and transmitting amplifiers

Art Unit: 2618

(col. 3 line 63 through col. 4 line 4); and a baseband processor connected to the processor unit (col. 3 lines 47-63); a shield case configured to cover the receiving amplifier, the transmitting amplifier, and the processor unit (col. 8 line 67 through col. 9 line 2).

Hikita does not explicitly show that a first partition provided from a top panel of the shield case to a surface of the mounting substrate so as to separate the receiving and transmitting amplifiers by extending from an end of the shield case; and a second partition extending to another end of the shield case from a cut, the cut extending from the first partition in the shield case so as to be laid across the processor unit.

In the same field of endeavor, Sato teaches a first partition provided from a top panel of the shield case to a surface of the mounting substrate so as to separate the receiving and transmitting amplifiers by extending from an end of the shield case (see fig. 3 page 3 [0047]); and a second partition extending to another end of the shield case from a cut, the cut extending from the first partition in the shield case so as to be laid across the processor unit (see fig. 3 page 3 [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a first partition provided from a top panel of the shield case to a surface of the mounting substrate so as to separate the receiving and transmitting amplifiers by extending from an end of the shield case; and a second partition extending to another end of the shield case from a cut, the cut extending from the first partition in the shield case so as to be laid across the processor unit, as taught by Sato, in order to provide isolation structure for an electronic device which is designed

Art Unit: 2618

to isolate electronic components in the electronic device electromagnetically from the outside for preventing undesired electromagnetic waves from entering and leaking out of the electronic device.

Consider claim 2, Hikita further teaches the processor unit monolithically integrates the receiving and transmitting processors and a ground region placed between the receiving and transmitting processors on a semiconductor chip (see fig. 9 col. 9 lines 3-13).

Consider claim 3, Sato further teaches the first partition is connected to a first ground terminal of the processor unit, the first ground terminal being connected to an end of the ground region and being provided in a vicinity of the first partition (see fig. 5 page 1 [0006]).

Consider claim 4, Sato further teaches the second partition is connected to a second ground terminal of the processor unit, the second ground terminal being connected to other end of the ground region and being provided in a vicinity of the second partition (see fig. 5 page 1 [0006]).

Consider claim 5, Sato further teaches at least a part of the respective first and second ground terminals are placed to face each other (page 2 [0017]).

Art Unit: 2618

Consider claim 6, Sato further teaches the shield case is connected to third ground terminals of the processor unit, the third ground terminals being connected to a receiving side ground region and a transmitting side ground region, respectively, of the receiving and transmitting processors provided on opposite ends of the semiconductor chip (page 4 [0057]).

Consider claim 7, Sato further teaches a conductive member is placed between the cut and a package of the processor unit in contact with the cut and the package (see fig. 4 page 4 [0060]).

Consider claim 8, Sato further teaches an external ground electrode connected to at least one of the first and second ground terminals is provided on a surface of the package, the surface being in contact with the conductive member (page 2 [0017]).

Conclusion

4. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street


Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. N.
Tuan Nguyen
Examiner
Art Unit 2618

 12/11/06
QUOCHIE B. VUONG
PRIMARY EXAMINER